

Introduction to Nuclear Engineering: A Multidisciplinary Technical Elective

Executive Summary

As a faculty member of the School of Engineering, Dr. Elizabeth Ervin is requesting funds to support the initiation of nuclear technical education at the University of Mississippi. The proposed course, *Introduction to Nuclear Engineering*, will promote technical understanding rather than apprehension of nuclear technology. Paralleling the U.S. Nuclear Regulatory Commission's (NRC's) curriculum development program goals, this new course will provide more qualified non-nuclear engineers for the nuclear industry and, in particular, Southern Nuclear Operating Company; enhance engineering curricula with a truly multidisciplinary course offering; and improve faculty teaching and research competencies. This project will relate to multiple areas of the NRC's technical interests including fission science, nuclear systems engineering, reactor design, infrastructure sustainability, and radiological management. Based upon her experience in the Naval Nuclear Propulsion Program, the principal investigator has recruited organizational support as well as student interest. Including course details, this proposal consists of development, assessment, dissemination, sustainability, and budget plans. The requested funding will allow for course development, necessary travel, and student support. The resulting nuclear training will be a rewarding learning experience for both the students and the instructor. The development of nuclear engineering at the University of Mississippi will also result in increased student recruitment while developing new relationships with the nuclear industry.